

DRAWINGS:

Applicants propose a change to Figs. 4a and 4b as shown in the attached copies in red. The change adds just a character reference BS to the drawings. Therefore, Applicants believe that the change does not constitute new matter. Applicants will submit formal drawings upon indication of allowance by the Examiner.

REMARKS:

Oath/Declaration

Applicants note that the indications of the priority dates in the declaration are inconsistent. 2/7/2003 was correctly noted in accordance with Date/Month/Year (see the Declaration), while 3/28/2003 was mistakenly noted because it follows Month/Date/Year. Although the expressions are different, both dates are the correct priority dates. Besides, the filing receipt correctly acknowledges the priority dates. If the Examiner nonetheless needs a new declaration, please advise Applicants.

Specification

In the above amendment, Applicants have corrected the informalities in the specifications pointed out by the Examiner in the Office Action.

Claim Objections

In the above amendment, Applicants have corrected the informalities in the claims pointed out by the Examiner.

Claim Rejections – 35 USC 112, first paragraph

Claims 16-19 were rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement. The specification recites a “body support” in paragraph 49. The specification is clear in that the body support is provided on the base and supports the body 14 for vertical movement. On the other hand, Figs 4a and 4b show the body support without any reference number or character. In the above amendment, Applicants designate the body support as “BS” and add the character reference to the specification and the drawings. Because nothing is substantively added to either the specification or the drawings, there should be no new matter concern.

Claim Rejections – 35 USC 112, second paragraph

Claims 12-15 were rejected under 35 USC, second paragraph, as being indefinite for failing to particularly point out and distinctively claim the subject matter

which Applicants regard as the invention. In the above amendment, claim 12 has been amended to clarify the subject matter recited therein.

Claim Rejections – 35 USC 102

Claim 1 was rejected under 35 USC 102(b) as being anticipated by Uehlen-Proctor. In the above amendment, Applicants have incorporate the limitations recited in claim 2 into claim 1. More specifically, amended claim 1 recites, among other limitations:

a first rack that is fixedly mounted on said cylindrical housing and has a column of teeth arranged along said axis;

a second rack that is fixedly mounted on said body and has a column of teeth arranged along said axis opposite to the teeth of said first rack; and

a pinion that is positioned in engagement with the teeth of both said first and second racks, said pinion being axially movable relative to each of said first and second racks, whereby rotation of said pinion causes relative axial movement between said body and said pinion and further relative axial movement between the pinion and said cylindrical housing.

As the Examiner admits in the Office Action, Uehlen-Proctor is silent about the above limitations. Therefore, the reference cannot anticipate amended claim 1.

Claim Rejections – 35 USC 103

Claim 7 was rejected under 35 USC 103 as being unpatentable over Uelein-Proctor in view of Shotter. Claim 3 was rejected under 35 USC 103 as being unpatentable over Uelein-Proctor in view of Shotter and further in view of Gill. Claims 4 and 8 were rejected under 35 USC 103 as being unpatentable over Uelein-Proctor in view of Shotter in view of Gill and further in view of Rydell. Claims 5 and 9 were rejected under 35 USC 103 as being unpatentable over Uelein-Proctor in view of Shotter in view of Gill in view of Rydell and further in view of Williamson, Jr. Claims 11 and 12 were rejected under 35 USC 103 as being unpatentable over Uelein-Proctor in view of Shotter and further in view of Lawier. Claim 13 was rejected under 35 USC 103 as being unpatentable over Uelein-Proctor in view of Screen and further in view of Gill

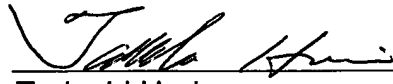
and Rydell. Claim 14 was rejected under 35 USC 103 as being unpatentable over Uelein-Proctor in view of Screen in view of Gill in view of Rydell and further in view of Williamson, Jr.

In the above amendment, Applicants have modified independent claims 1, 7, 11 and 16 to recite the above three limitations. The important feature of the present invention is that the pinion is axially movable relative to the body and that the pinion is also axially movable relative to the cylindrical housing. Under these constructions, when the pinion rotates, it axially moves relative to the body along the second rack, while it axially moves the cylindrical housing relative to itself. As a result, a small amount of rotation by the pinion causes a large amount of axial movement of the cutting tool. Thus, even in a low profile drilling machine, a large amount of axial movement can be effected with the cutting tool.

As discussed above, there is nothing in Uelein-Proctor that suggests or teaches the above feature of the present invention. Shotter is silent about the feature, too. As shown in Fig 18 of Shotter, the free pinion 180 is fixedly provided to the body. Since the pinion 180 is fixed to the body, it is clear that Shotter cannot achieve the effect the present invention can achieve. The Examiner cited Gill (US Patent No. 6,280,123) in the Office Action although it is not listed on the notice of references cited. As shown in the figures of Gill, the pinion 80 is not axially movable with respect to the body. Therefore, Gill does not teach the present invention. Rydell is silent about the above feature of the present invention. In Williamson, Jr., the pinion 56 is fixed to the body as shown in Fig. 2. Thus, Williamson, Jr. does not teach the present invention, either. Lawler does not teach the present invention. Nor does Screen teach or suggest the present invention.

Thus, since none of the cited references teaches or suggests the above feature of the present invention, independent claims 1, 7, 11 and 16 should be allowable over the references. Since the independent claims should be allowable, their dependent claims should also be allowable over the cited references.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Tadashi Horie", is written over a horizontal line.

Tadashi Horie
Registration No. 40,437
Attorney for Applicant(s)

BRINKS HOFER GILSON & LIONE
P.O. Box 10395
Chicago, IL 60610
(312) 321-4200